



Blastobasinae (Lepidoptera: Gelechioidea: Coleophoridae) of Thailand, Part II. Four New Species of *Blastobasis* Zeller, 1855

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Abstract Four new species of *Blastobasis* Zeller, 1855 are described from Thailand: *B. tridigitella*, *B. basipectenella*, *B. bispinaella*, and *B. ianella*. Photographs of the imagos and illustrations of the male and female genitalia are provided.

Key words Asia, Blastobasini, taxonomy

INTRODUCTION

This is the second of a five part work describing the Blastobasinae (Coleophoridae) of Thailand. Part I (Adamski, 2003) describes the first records of Holcocerini in Thailand, and this (Part II) and remaining parts describe new genera and species of Blastobasini.

Material examined was obtained from surveys by Japanese lepidopterists headed by Segeru Moriuti in the 1980's. A detailed account of these surveys in Thailand can be found in Moriuti and Kuroko (1987). Other materials and methods follows Adamski (2003). All holotypes are deposited in the Entomological Laboratory, University of Osaka Prefecture, Sakai, Osaka, Japan (UOP). Paratypes are deposited in the above depository and in the National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA (USNM).

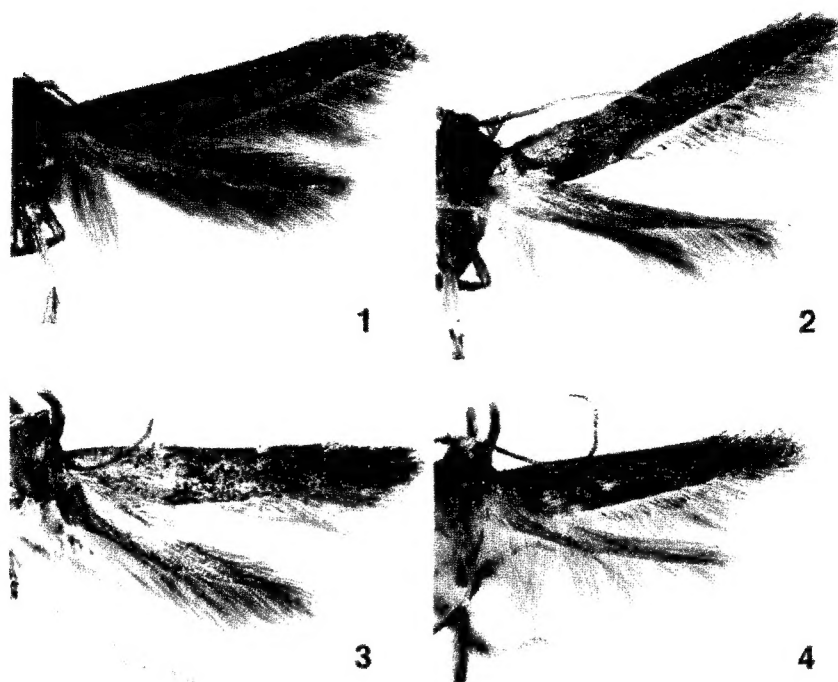
***Blastobasis tridigitella* Adamski, n. sp.**

(Figs. 1, 5, 9)

Diagnosis. *Blastobasis tridigitella* is similar to *B. basipectenella* in the wing pattern and male genitalia, but differs by having a wider flagellum of the antenna in the male; a wider basal margin of the lower part of the valva; and an elongate, outwardly-curved process arising from the mediodistal margin of the lower part of the valva.

Description. Head: Frontoclypeus and vertex with scales grayish brown tipped with pale gray; outer surface of labial palpus with segment I brown; segment II grayish brown, or grayish brown intermixed with white to near apex, or white intermixed with some grayish-brown scales basally; segment III grayish brown or grayish brown intermixed with white scales; inner surface of labial palpus white intermixed with a few grayish-brown scales; scape of antenna and first flagellomere in male with scales grayish brown tipped with pale gray, flagellum gray, about twice as wide in male than in female; first flagellomere notched in male; proboscis with scales grayish brown tipped with pale gray.

Thorax: Mesonotum dark grayish brown anteriorly, brownish gray posteriorly; tegula with



Figs. 1–4. Imagos of *Blastobasis* spp.: 1. *B. tridigitella* (holotype); 2. *B. basipectenella* (holotype); 3. *B. bispinaella* (holotype); 4. *B. ianella* (holotype).

scales grayish brown tipped with pale gray, except distal scales gray. Forewing (Fig. 1) length 6.0–7.8 mm ($n = 9$) grayish-brown scales intermixed with brown scales, each tipped with pale gray; three dark grayish-brown spots within cell, one near middle and two at distal end near termen; fringe pale brown tipped with white; undersurface brown. Hindwing pale gray.

Male genitalia (Fig. 5): Uncus a slightly protuberant, sparsely setose lobe; gnathos absent; tergal setae sparse; vinculum wide; valva with two acutely curved digitate processes, one formed from the costa curved inwardly and the other formed from the apical margin of the lower part of the valva curved outwardly; lower part of valva wide, subquadrate, apical part membranous and broadly rounded; basal lobe of lower part of valva broad, setose, outer margin rounded, reflexed, and apically developed into an elongate spine-like process; juxta divided (not shown); aedeagus acutely curved from subapical part of anellus; anellus with several small, stout setae.

Female genitalia (Fig. 9): Ovipositor telescopic, with four membranous subdivisions; eighth tergum with a median longitudinal dark brown streak; ostium in membrane slightly posterior to seventh sternum, flanked posterolaterally by a pair of microtrichiate, cylindrical lobes; posterior margin of seventh sternum nearly straight; antrum membranous, slightly widened posteriorly, bearing ductus seminalis on anterior end; ductus bursae elongate and narrow, with rows of internal platelets on anterior third; corpus bursae slightly elongate, with a capitulate, horn-like signum.

Types. Holotype: ♂, "THAILAND, Chiang Mai, Doi Pakia, (ca. 1500 m), 5.XI.1985, S. Moriuti, T. Saito, & Y. Arita", "Lepidopt. Exped. Thai., Coll. Ent. Lab., Univ Osaka Pref.", "Genitalia Slide by DA 4322." Deposited in UOP. Paratypes (7 ♂, 1 ♀): 2 ♂, 1 ♀, same data

as holotype except, “♀ Genitalia Slide by DA 4184”, and “♀ Genitalia Slide by DA 4187”; 4, same data as holotype except, “Doi Pui”, 26–27.X.1985”, “♂ Genitalia Slide by DA 4323”; 1 ♂, same data as holotype except, “Doi Inthanon”, “1 & 3.XI.1985”, “♂ Genitalia Slide 4185.” Four paratypes in UOP, 4 in USNM.

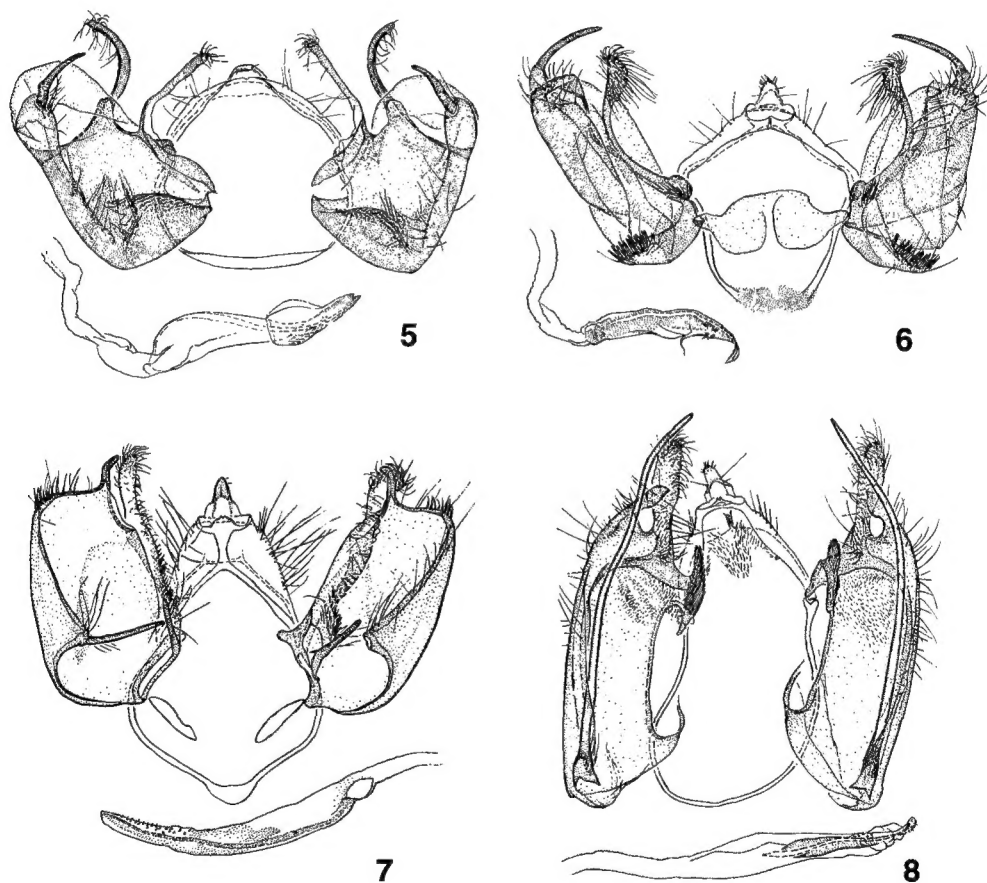
Etymology. The species epithet is derived from the Latin *tri*, meaning three, and *digitus*, meaning finger, and refers to the three finger-like projections arising from the costa and lower part of the valva.

***Blastobasis basipectenella* Adamski, n. sp.**

(Figs. 2, 6)

Diagnosis. *Blastobasis basipectenella* is similar to *B. tridigitella* in the wing pattern and male genitalia, but differs by having a narrower flagellum in the male; a digitate process arising from the costa that is apically dilated; a comb-like process arising from the basal part of the lower part of the valva; and an aedeagus that is acutely curved apically.

Description. Head: Frontoclypeus and vertex with grayish brown scales tipped with pale



Figs. 5–8. Male genitalia of *Blastobasis* spp.: 5. *B. tridigitella* (holotype); Fig. 6. *B. basipectenella* (holotype); Fig. 7. *B. bispinaella* (holotype); Fig. 8. *B. ianella* (holotype).

gray; outer surface of labial palpus with segment I grayish brown, segment II grayish brown intermixed with dark gray scales, and white scales near apical margin, and segment III grayish brown intermixed with white scales; inner surface white; scape of antenna with grayish-brown scales tipped with pale gray, flagellum gray in basal 2/3, pale gray on distal third; first flagellomere notched in male; proboscis with scales grayish brown tipped with pale gray.

Thorax: Mesonotum and tegula gray. Forewing (Fig. 2) length 6.0–6.1 mm (n = 2) grayish-brown and pale grayish-brown scales, each tipped with white; submedian fascia complete, faint; three dark gray spots within cell, one near middle and two at distal end near termen; fringe pale brown tipped with white; undersurface brown. Hindwing pale gray.

Male genitalia (Fig. 6): Uncus, a moderately protuberant, sparsely setose lobe; gnathos forming a narrow support for tuba analis; medioventral margin of gnathal support with a narrowly pointed lobe; tergal setae sparse; vinculum wide, dilated ventrally, narrow to dorsolateral apices; valva with one digitate process forming from distal costa; digitate process setose, distally dilated; lower part of valva wide, subquadrate; basal part with an elongate, comb-like process (bearing many stout setae); outer margin of lower part of valva rolled inwardly, apically developed into an elongate spine-like process; juxta divided ventrally and weakly fused dorsomedially; aedeagus acutely curved apically; anellus with several stout setae.

Female genitalia: Unknown.

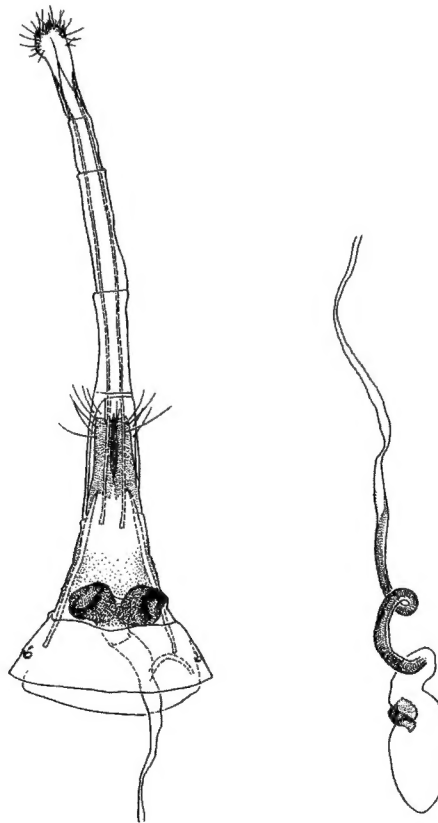


Fig. 9. Female genitalia of *Blastobasis tridigitella* (paratype).

Types. Holotype: ♂, "THAILAND, Chiang Mai, Doi Chang Khian, (ca. 1250 m), 25.X.1985, Sigeru Moriuti, Tosihisa Saito, & Yutaka Arita", "Lepidopt. Exped. Thai., Coll. Ent. Lab., Univ Osaka Pref.", "Genitalia Slide by DA 4198." Deposited in UOP. Paratypes: 1 ♂, same data as holotype except, "Doi Pui (ca. 1300 m), 26–27.X.1986", "♂ Genitalia Slide by DA 4197." Deposited in USNM.

Etymology. The species epithet is derived from the Latin basis, meaning base, and pecten, meaning comb, and refers to the comb-like process arising from the base of the lower part of the valva.

***Blastobasis bispinaella* Adamski, n. sp.**

(Figs. 3, 7)

Diagnosis. *Blastobasis bispinaella* is similar in the wing pattern to *B. ianella* but differs by having two elongate spine-like projections arising from the basal portion of the lower part of the valva.

Description. Head: Vertex and frontoclypeus pale brown; outer surface of labial palpus with segment I brown intermixed with pale brown scales along apical margin; segment II brown on basal fourth, brown intermixed with pale brown scales mesally; pale brown on apical fourth; inner surface pale brown; segments of labial palpus wide, outer margin cylindrical, inner margin flat; scape of antenna and first flagellomere pale brown; first flagellomere notched in male; flagellum gray; proboscis pale brown.

Thorax: Mesonotum and tegula pale brown intermixed with a few brown scales. Forewing (Fig. 3) length 5.5 mm (n = 1) basal 2/3 pale brown intermixed with brown and a few white scales; distal third brown intermixed with a few pale brown and white scales; three brown spots within cell, one near middle and two at distal end near termen; fringe pale brown; undersurface brown. Hindwing pale brown.

Male genitalia (Fig. 7): Uncus sparsely setose, with basal half wide, distal half gradually narrowed to a rounded apex; arms of gnathos confluent with tegumen, medioventral margin formed into a rounded lobe bearing two small, pointed teeth; tergal setae sparse; vinculum wide; valva with upper part formed into digitate, setose lobe; lower part of valva wide, subquadrate, ventral margin produced into an elongate process fused with basal elongation of costa; outer margin curved inwardly from an elongate spine-like process (pointed inwardly) to a rounded apicolateral angle bearing several stout marginal setae; apex of lower part of valva produced into a slightly elongate spine-like process, abruptly curved inwardly near 2/3 length; juxta divided; aedeagus slightly curved; anellus bearing several stout setae.

Female genitalia: Unknown.

Type. Holotype: ♂, "THAILAND, Chiang Mai, Doi Angkhang (ca. 1450 m), 16.V.1983, Kuroko, Moriuti, Arita & Yoshiyasu", "Lepidopt. Exped. Thai., Coll. Ent. Lab., Univ Osaka Pref.", "Genitalia Slide by DA 4313." Deposited in UOP.

Etymology. The species epithet is derived from the Latin basis, meaning base, and spina, meaning spine, and refers to the two spine-like projections on the basal margin of the lower part of the valva.

***Blastobasis ianella* Adamski, n. sp.**

(Figs. 4, 8)

Diagnosis. *Blastobasis ianella* is similar in the wing pattern to *B. bispinella* but differs from the latter species by having an elliptic cluster of white sex scales in the middle of the inner surface of segment II of the labial palpus, and an elongate, whip-like spine originating from

the submarginal area near the basiolateral margin of the lower part of the valva, extending slightly beyond the length of the valva.

Description. Head: Vertex and frontoclypeus pale brown; outer surface of labial palpus with segment I brownish gray, segment II with basal 1/3–1/2 brownish gray and apical 1/2–2/3 pale brownish gray, and segment III pale brown; inner surface of labial palpus pale brown, except segment II with an elliptic cluster of white sex scales in middle (spot slightly less than half diameter of segment); labial palpus wide, outer surface cylindrical, inner surface flat; scape of antenna pale brown, flagellum gray; first flagellomere of antenna notched in male; proboscis brownish gray.

Thorax: Mesonotum and tegula with scales brownish gray tipped with pale gray. Forewing (Fig. 4) length 6.3–7.0 mm (n = 2) basal third pale brown intermixed with a few brownish-gray scales tipped with pale brown except, base of costa brownish gray, distal 2/3 with brownish-gray scales tipped with pale brown, intermixed with a few pale brown scales; fringe brown tipped with pale brown; undersurface brown. Hindwing pale grayish brown.

Male genitalia (Fig. 8): Uncus sparsely setose, with basal half wide, distal half gradually narrowed to a rounded apex; arms of ganthos confluent with tegumen, providing a thin support for tuba analis; medioventral margin of gnathos formed into a rounded lobe bearing two small, pointed teeth; tergal setae sparse; tergum short, about a third length of vinculum; valva with a short, digitate, setose process forming from distal costa and inner margin of the lower part of the valva; lower part of valva subretangular, apically produced into a slightly elongate spine-like process that is constricted near basal third, bearing a whip-like spine, originating from the submarginal area near the basiolateral margin, and extending slightly beyond the distal part of the valva; inner margin of lower part of valva widely emarginate from the dorsal articulation to an acutely upturned part of the lower margin; juxta absent; aedeagus straight except, slightly curved subapically; anellus with several small, stout setae.

Female genitalia: Unknown.

Types. Holotype: ♂, “THAILAND, Chiang Mai, Doi Chang Khian (ca. 1250 m), 25.X. 1985, Sigeru Moriuti, Tosihisa Saito & Yutaka Arita”, “Lepidopt. Exped. Thai., Coll. Ent. Lab., Univ. Osaka Pref.”, “Genitalia Slide by DA 4192.” Deposited in UOP. Paratypes: 1 ♂, same data as holotype except, “♂ Genitalia Slide by DA 4193.” Deposited in USNM.

Etymology. The species is named in honor of newly born, Ian Edward Emanuel.

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